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NAMES AS CONSTITUENTS OF SENTENCES: AN OMISSION

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1. *Horne and Lowe's achievement; integrating speaker's and listener's behavior*

Before turning to criticism, let me say that in my opinion this article makes a very significant contribution to our understanding both of the initial stages of the process of language development and of the phenomena of stimulus equivalence as observed in the matching-to-sample experiment. It rightly identifies learning to name types of object and event as the fundamental linguistic skill which a child acquires from its early linguistic interactions with the caregiver and as an essential pre-requisite for all subsequent linguistic development. It draws a clear distinction between learning to name and the type of conditional discrimination learning observed in the behavior of pre-linguistic organisms. In so doing it draws attention in a way that Skinner (1957) with his pre-occupation with the behavior of the speaker failed to do, to the interaction between learning as speaker to produce the name in the presence of stimulus to which it applies and learning as listener to pick out and point to an instance when presented with the name. I am also persuaded by the argument and evidence that is adduced in support of the claim that it is the simultaneous deployment of these two skills, brought into play through assigning a name to the stimuli involved, which accounts for the formation of stimulus equivalence classes on the matching-to-sample task (Place, 1995/6).

One of the weaknesses of traditional accounts of linguistic communication is that it treats the meaning of a word, phrase or sentence as something which simply attaches to those linguistic units, regardless of whether they occur as responses emitted by a speaker or as stimuli controlling the behavior of the listener. It is an important virtue of Skinner's (1957) account that it recognizes that from a behavioral perspective the verbal behavior of the speaker is a quite different phenomenon from the response of the listener to the stimulus which

it provides. But because of his pre-occupation with the former to the virtual exclusion of the latter, Skinner failed to appreciate what is right about the traditional view, namely that at a very early stage in language development these two aspects of language, the speaker's verbal behavior and the listener's response to verbal stimuli, become interlocked in a way which gives to language and linguistically controlled behavior their distinctive properties. It is a major achievement of this article that it puts the record straight in this respect.

2. *The failure to acknowledge the sentence as the functional unit of language*

I have two criticisms both of which concern respects in which Horne and Lowe perpetuate defects in the account of language which Skinner expounds in his book *Verbal Behavior* (Skinner, 1957). The first is their failure to recognize that the functional units of language are sentences, typically, as Chomsky (1957; 1959, etc.) has repeatedly argued, sentences which are novel in the sense of never having been previously encountered by the listener or constructed by the speaker. As a result, they fail to follow their powerful account of how the child learns to connect names to the objects and events they "stand for" with an equally powerful account of how it learns (a) to distinguish object names (nouns) from event names (verbs) and (b) then goes on to combine these categories in such a way as to generate simple sentences, such as the sentence "daddy push car" which they quote along with its self-directed counterpart "push.....push." The latter, though it consists of the repeated utterance of a single event name (verb) conforms to exactly the same canons of sentence structure as does the former with its subject-noun/transitive-verb/object-noun pattern. In the latter case the verb is in the [page 303] imperative which means that it requires no separately specified subject term, since the subject of an imperative is always understood to be the listener who, in the case of a self-directed utterance such as this, is the same individual as the speaker. Likewise, no separately specified object term is required, since, as Horne and Lowe point out, "she is already looking at the car" and thus needs no prompting as to what it is that needs to be pushed. But lacking the concept of a sentence and its structure, Horne and Lowe lack the resources to enable them to distinguish between these simple sentences and what are, as far as the listener is concerned, functionless intraverbal concatenations, such as "fork knife" and "fork spoon" which they also quote.

3. *Three senses of the word "tact"*

My second criticism which is related to the first is that Horne and Lowe have failed to take on board the thesis of my (Place 1985) paper in *Behaviorism* in which I pointed out that in *Verbal Behavior*, Skinner uses the term 'tact' in three different senses:

1. A 'tact' in this sense is a verbal operant whose

emission by the speaker *on that occasion* is under the control of a non-verbal discriminative stimulus which the utterance can be said to 'name' (in the case of a word) or 'describe' (in the case of a phrase or sentence). Tacts in this sense contrast with intraverbals (and to some extent with echoics and textual responses). (Place, 1985, p. 64)

2. A 'tact' in this sense is

a sentence-constituent, a part of a word, a word, or a descriptive phrase, considered in abstraction from the particular context of the utterance. The distinguishing mark of a tact in this sense is that it 'names,' 'describes,' or 'refers to' an actual or possible feature of the common environment of the verbal community constituted by speakers of the natural language or code to which the word or words in question belong. Tacts in this sense contrast with autoclitics. (Place, 1985, p. 65)

3. A 'tact' in this sense consists in the utterance of a declarative sentence¹ or statement.

The function of a tact in this sense is to act in the interest of the listener by providing information about aspects of the environment which would otherwise be inaccessible. 'Tacts' in this sense contrast with 'mands' which likewise consist in a sentence or sentence-utterance, typically, a sentence in the imperative or interrogative mood whose function is to direct the behavior of the listener in the interests of the speaker. (Place, 1985, p. 66)

Once the distinction is drawn between these three senses of the term, it is apparent that tacts in these three senses emerge at three different stages in the process of linguistic development. Tacts in Sense 1, the only sense which Horne and Lowe acknowledge, are acquired as a consequence of what they identify as the speaker's role in learning the names of things in which stimuli projected by instances of a kind evoke the emission of the response of uttering the name assigned in the language to that kind of thing. As such they appear at the very earliest stage language acquisition. Tacts in Sense 2, since they are sentence constituents, only emerge at a later stage of language development when the first sentences appear. As we have seen, such early sentences consist entirely of names (tacts in sense 2). However, in order to achieve the structure that is essential to their constituting

¹ [Added after publication] Originally I incorrectly used the term "indicative sentence" here. This would exclude sentences in the subjunctive mood, such as the rule 'If the match were to be struck against the sandpaper, it would ignite.' Even the description "declarative sentence" is not quite accurate. For example, the conditional imperative 'If you want the match to ignite, strike it against the sandpaper' is an information-providing tact, rather than behavior-directing mand.

a sentence, there has to be a differentiation between object names (nouns) and event/behavior names (*verbs*). Since sentences are the functional units of language, it follows that the appearance of the first sentences consisting entirely of names or tacts in Sense 2, coincide with the earliest functional uses of language outside the situation in which the child is being reinforced by the caregiver for producing and responding to names. But because it is easier for the child to learn uses of language whose function is to evoke a reinforcing consequence for the child from the listener than it is to learn uses of language whose function is to provide information to the listener, it also follows that these earliest sentences are, as Horne and Lowe's examples show, mands rather than tacts in Sense 3. The acquisition of the ability to respond to interrogative mands by producing tacts in this information-providing-sentence sense may be thought as the final and crowning achievement of the child's basic linguistic development.

Only by drawing these distinctions can we explain why Horne and Lowe, relying on Skinner's initial definition of the tact (Skinner, 1957 p. 83) that assigns it firmly to Sense 1, see learning to tact as an integral part of the basic process of learning to name (p. 199) and insist that

When manding comes about it does so generally via naming, that is, names are first established and then functionally extended to mand objects and events. (Horne and Lowe, p. 211)

In contrast, Skinner, relying here on Sense 3, takes the mand (1957, Chapter 3) as the basic form of verbal operant and treats the tact (1957, Chapter 5) as a later and more sophisticated development.

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